Remarks

Applicant respectfully request reconsideration of this application as amended. No claims have been amended. No claims have been cancelled. Therefore, claims 1-9, 26 and 27 are presented for examination.

Claims 1-3, 7-9 and 26-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Alastalo et al., U.S. Publication No. 2001/0047424 ("Alastalo") in view of Raghothaman et al., U.S. Publication No. 2005/0111376 ("Raghothaman"). Applicant submits that the present claims are patentable over Alastalo in view of Raghothaman.

Alastalo discloses a method for arranging communication between terminals (MT1-MT4) and an access point (AP1, AP2) in a communication system (1) applying data transmission frames (FR). The data frames (FR) comprise at least uplink time slots (UL) for performing data transmission from the terminals (MT1-MT4) to the access point (AP1, AP2), and downlink time slots (DL) for performing data transmission from the access point (AP1, AP2) to the terminals (MT1-MT4) via a wireless communication channel. In the method, the terminals (MT1-MT4) can be allocated one or more time slots (702-707, 802-807) of said frames. In the method, the spatial signature of at least said two terminals (MT1-MT4) is determined, and in at least part of said frames (FR), at least partly simultaneous time slots (704-707, 802-804) are allocated to at least two terminals (MT1-MT4). In the method, measurements are also taken to estimate the timing and frequency offsets and the properties of the communication channel, which measurements are taken at least partly on the basis of a signal transmitted by the terminal (MT1) to the access point (AP1, AP2), wherein the results of said measurements are used to select the terminals (MT1-MT4) to which simultaneous time slots (702-707, 802-807) are to be allocated. During said measurements, the other

terminals (MT1-MT4) communicating with the access point (AP1, AP2) do not transmit a signal to said access point (AP1, AP2). See Alastalo at Abstract.

Raghothaman discloses a method for transmitting a packet of N input bits including encoding all of the N bits as a single entity, such as with an interleaver of length N within a turbo coder, outputting M encoded bits, channel interleaving the M bits, splitting the M encoded bits into a parallel first and second portion, and transmitting them over separate channels to achieve spatial diversity. The size of the first and second portion is determined based on a closed feedback loop that provides some knowledge of the channel, preferably a measure of channel capacity. The feedback loop may also provide channel knowledge to a subpacket selector associated with each transmit antenna, which determines an appropriate rate for that channel and selects subpackets to fill a transmission packet for that channel. The subpacket selectors choose a subpacket of systematic bits and fill the remaining transmission packet size with subpackets of parity bits. Eigenvectors may be employed to transmit each transmission packet over more than one channel with a power disparity between the channels. See Raghothaman at Abstract.

The claims of the present application each recite a scheduler in an access point arranging variable length packets to fill each of M spatial channels during a time interval based on transmission times for different packet lengths of each of the variable length packets. Applicant submits that Alastalo and Raghothaman each fail to disclose or suggest a process of arranging variable length packets to fill each of M spatial channels during a time interval based on transmission times for different packet lengths.

The Examiner maintains that paragraph [0058] of Alastalo discloses such a process. See Office Action at Page 3, lines 1-17. Particularly, the Examiner interprets paragraph [0058]:

> to mean that the length of the transmission (variable length packets) determines when to schedule a transmission to respective terminals in the respective time slots (time interval), thus correlating to arranging variable length packets (packet length criterion) to fill each of M spatial channels during a time interval (time slots for a respective terminal which are simultaneously based) based on transmission times for different packet lengths of each of the variable lengths (the different packet lengths will determine the transmission times for serving the terminals simultaneously).

Id.

Applicant respectfully disagrees with such an interpretation. The passage of Alastalo relied on by the Examiner discloses:

> [0058] In view of applying space division multiple access technology, it is advantageous that the lengths of the transmissions, i.e. the packets, of the terminals to be served simultaneously are in the same order. Thus, also the packet length can be used as a criterion for selecting the terminals to be served simultaneously. On the other hand, the access point can have some effect on the packet length. For example, a long packet can be split into smaller parts which are transmitted separately. Thus, a shorter packet intended for another terminal can have the length of such a part of a longer packet, and said short packet can be transmitted together with the part of the longer packet by space division multiple access.

Alastalo at paragraph [0058].

The above passage of Alastalo explicitly discloses using packet length as a criterion for selecting terminals to be served simultaneously. However, there is no reasonable suggestion in this passage of ***arranging variable length packets based on transmission***

times for different packet lengths that would support the Examiner's interpretation. Therefore, such an interpretation would involve impermissible hindsight in view of the present application.

Since Alastalo and Raghothaman each fail to disclose or suggest a scheduler in an access point arranging variable length packets to fill each of M spatial channels during a time interval based on transmission times for different packet lengths of each of the variable length packets, any combination of Alastalo and Raghothaman would fail to disclose or suggest such a process. As a result, the present claims are patentable over Alastalo in view of Raghothaman.

Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Alastalo in view of Raghothaman and further in view of Niwano, U.S. Publication No. 2007/0081498 ("Niwano"). Applicant submits that the present claims are patentable over any combination of Alastalo, Raghothaman and Niwano since none of the references disclose or suggest a scheduler in an access point arranging variable length packets to fill each of M spatial channels during a time interval based on transmission times for different packet lengths of each of the variable length packets.

Applicant submits that the rejections have been overcome and that the claims are in condition for allowance. Accordingly, applicant respectfully request the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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